

# CURRICULUM VITAE

TALWANA, L. A. Herbert PhD

Male, born 2 November 1970, Ugandan by nationality; Married, with 4 children

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## Professional Experience

- Lecturer, Department of Crop science, Faculty of Agriculture, Makerere University (October 2001 – presently); Teaching and Supervision of graduate and undergraduate students' research in the Faculty of Agriculture, Dept. of Crop Science, Makerere University
- External Examiner – Department of Agronomy Faculty of Agriculture and Environment, Gulu University (2005 – July 2007)
- Private Biological efficacy evaluator of Agrochemicals – Department of Crop Protection, Ministry of Agriculture, Animal Industry and Fisheries(2006 – )
- Organic Production Systems Specialist – USAID/Agricultural Productivity Enhancement Program (USAID- APEP) (2007 – 2008 )
- Lead Consultant – 2005 - 2008: Research component of African Highland Initiative – Acacia II Project: Improved access to information for development – Conceptualization and Development of an information sharing and communication strategy for Kabale District
- Agricultural Management Specialist – 2002 – 2004: Kabarole, Kamwenge and Kyenjojo District Development Support Programmes (Funded by International Fund for Agricultural Development (IFAD), Belgian Survival Fund (BSF), Irish Aid and Government of Uganda
- Senior Agricultural Inspector, Phytosanitary Inspection Services, Department of Crop Protection, Ministry of Agriculture, Animal Industry and Fisheries (2000 (April) – 2002 (July))
- Graduate Research Fellow – International Institute of Tropical Agriculture, Eastern and Southern Africa Regional Centre, Namulonge, Uganda (1996 – 2000)
- Research Assistant (Nematology) – National Cassava Research Programme, Namulonge Agricultural and Animal Production Research Institute (1994 – 1996)
- Supervised more than 20 undergraduate, 3 M.Sc and 2 PhD research projects

## Professional Training

- Agricultural Sciences, particularly Crop sciences; B.Sc Agric (MAK) 1994, M.Sc (Agric) (MAK) 1997, and PhD (Applied Biological Sciences) (Katholieke Universiteit Leuven, Belgium), 2002.

## Other training

- Monitoring, Evaluation and Impact Assessment of Research and Development Investments in Agriculture, ISNAR/IFPRI, November – December 2004.
- Change Management and Personal Mastery – Soft skills training to enhance teaching, research and consultancy, Rockefeller Foundation/Makerere University. Trainer of Trainees – 2004 - 2006
- Research and Development of New concepts in Integrated pest management, Agricultural Research Organization, Israel
- Identification of Pests of Phytosanitary Significance and Pest Risk Analysis, FAO/IPPC
- Advanced Statistical Data Analysis using SAS and GENSTAT computer packages, IITA

## **Main working areas**

### Applied Plant Nematology and Entomology

- Nematodes and Insects Diagnostics
- Pest management systems
- Pest – nutrient interactions
- IPM competency Development
- Biological efficacy evaluation of plant protection products in Uganda – designated by the Agricultural Chemicals Board, Department of Crop Protection Ministry of Agriculture, Animal Industry and Fisheries

### Design and facilitation of training, strategy and planning workshops

- Conceptualization and Development of improved access, sharing and communication strategy for Development in Kabale District: African Highland Initiative (AHI) Acacia II project: Improved Access to Information for Development (2005 – )
- Strengthening management by providing technical back up and advise to the production departments of Kabarole, Kamwenge and Kyenjojo in establishing and operating an effective front-line extension network which is closely linked with community development departments and farmers in identifying priority areas and facilitating a planning process to deal with local problems and opportunities, in line with the approved National Agricultural Advisory Services Programme (2002 – 2004).

### Project design and monitoring

- Review of Client Oriented research in Agricultural development for sustainable livelihoods projects (DFID) (2003):
  - ⇒ Farmer participatory evaluation of natural pest control measures suitable for use in sustainable agriculture production in Pallisa District
  - ⇒ Participatory management of arthropod and vertebrate pests of sweet potato in Apac, Katakwi and Kumi Districts
- Field monitoring of the Farm-level Applied Research Methods Programme for East and Southern Africa (FARMESA) sub-projects in Mukono, Busia, Kumi and Soroti Districts (2001 – 2002)
- Designing the FAO Technical Cooperation Programme: Strengthening Phytosanitary Capabilities of Uganda (TCP/UGA/2907) project supported by FAO under Phytosanitary Inspection Services, Department of Crop Protection, Ministry of Agriculture, Animal Industry and Fisheries (2002)

## **Membership to Societies and Initiatives:**

- African Crop Science Society (ACSS)
- Nematology Society of Southern Africa (NSSA)
- Nematology Initiative in East and Southern Africa (NIESA) – Founder member
- Eastern Africa Initiative for the Barcode of Life – steering committee member
- East African Taxonomy Network (EAFRINET) – a loop of BioNET

## **Fellowships/Grants Awarded**

1. DFID project R5739 Crop Protection Programme – M.Sc Research and Training Grant
2. Graduate Research Fellow – Rockefeller Foundation Grant through International Institute of Tropical Agriculture for PhD research and training
3. International Foundation of Science (IFS) grant C3504-1: Nematodes as production constraints in cereal based cropping systems in Eastern Uganda
4. NORAD/SIDA/Faculty of Agriculture small research grants scheme – The potential of organic amendments in the management of plant parasitic nematodes of bananas
5. Inter-University Council of East Africa/ VicRes/SIDA – Prospects of sustainable Cocoyam production in the Lake Victoria Basin
6. Post-doctoral Fellow – Building Nematology Capacity in East and Southern Africa/Nematology Initiative in East and Southern Africa – The Gatsby Charitable Foundation funded project
7. Carnegie Foundation/School of Graduate studies Makerere University post doctorate research grants –Diversity of Entomopathogenic nematodes and their potential for the control of insect pests in Uganda

#### **Current research**

1. Nematodes as production constraints in cereal based cropping systems in eastern Uganda 2003 - 2005
2. Developing physical management strategies for storage pests of dried cassava chips 2004 - 2006
3. Developing sustainable management of root-knot nematodes on horticultural crops in East Africa 2005 -
4. Prospects and constraints to sustainable cocoyam (*Colocasia esculentum*) production in Lake Victoria crescent 2005 -
5. Potential of organic amendments in the management of nematodes on bananas 2004 - 2005
6. Diversity of Entomopathogenic nematodes and their potential for the control of insect pests in Uganda 2006 - 2007

#### **Scientific papers and Conference proceedings published**

1. **Talwana, L. A. H.,** P. R. Speijer, C. S. Gold. R.L. Swennen, and D. De Waele 2006. Effect of nematode infection and damage on the root system and plant growth of three *Musa* cultivars commonly grown in Uganda. *Nematology*, 8: 177-189
2. Butseyia, M. M. **Talwana, L. A. H.** and Tusiime G. 2005. Plant parasitic nematodes associated with cereal based cropping systems in Uganda. In: Proceedings of the 7<sup>th</sup> African Crop Science Conference, Kampala, 5 – 9 November, 2005, Volume 7(part 1 of 3): 455 - 459)
3. **Talwana, L. A. H.,** P. R. Speijer, D. De Waele and R.L. Swennen 2005. Nematode root infection affects nutrient concentrations in banana leaves. In: Proceedings of the 7<sup>th</sup> African Crop Science Conference, Kampala, 5 – 9 November, 2005, Volume 7 (part 3 of 3): 1527 – 1538
4. **Talwana, L. A. H.** 2005. The relative importance of nematodes, nematode damage and plant nutrients status as banana production constraints in Uganda. In: Proceedings of the 7<sup>th</sup> African Crop Science Conference, Kampala, 5 – 9 November, 2005, Volume 7(part 1 of 3: 447 - 453).
5. **Talwana, L. A. H.,** P. R. Speijer, C. S. Gold. R.L. Swennen, and D. De Waele 2003. A comparison of the effects of *Radopholus similis* and *Pratylenchus goodeyi* on growth, root health and yield of an East African highland-cooking banana (*Musa* AAA-group). *International Journal of Pest Management*, 49:199-204

6. Coyne D. L. and **Talwana, L. A. H.** 2000. Reaction of cassava cultivars to root-knot nematodes (*Meloidogyne* spp.) in pot experiments and farmer-managed field trials in Uganda. *International Journal of Nematology*, 10: 153-158.
7. Coyne D. L., **Talwana, L. A. H.** and Maslen N. R. 2003. Plant parasitic nematodes associated with root and tuber crops in Uganda. *African Crop Protection*, 9: 87 – 98.
8. Speijer, P. R., Mudiope, J. Adipala, E. and **Talwana, L. A. H.** 1997. Comparison of plant stages for the evaluation of nematode damage on East African highland banana (*Musa* spp. AAA). *Proceedings of the First All Africa Crop Science Congress*, 13 - 17 January 1997, Pretoria, South Africa (Eds. Adipala, E., Tenywa, J.S. and Ogenga-Latigo, M.W.), 3: 1242 - 1246.
9. **Talwana, L. A. H.**, P. R. Speijer and D. De Waele. 1999. Nematode populations and damage distribution in roots of three banana cultivars in Uganda. Pages 535 – 540. In: *Proceedings of the Fourth African Crop Science Congress*, 11 - 14 October 1999, Casablanca, Morocco.
10. **Talwana, L. A. H.**, P. R. Speijer, E. Adipala and N. R. Maslen. 1997. Early screening of cassava for resistance to root-knot nematodes (*Meloidogyne* spp.). *Nematropica* 27:19 – 25
11. **Talwana, L. A. H.**, P. R. Speijer, E. Adipala and N. R. Maslen. 1997. Effect of root-knot nematode preplant populations on establishment of cassava cuttings. Pages 1239 – 1242 in *Proceedings of the First All Africa Crop Science Congress*, 13 - 17 January 1997, Pretoria, South Africa (Eds. Adipala, E., Tenywa, J. S. and Ogenga-Latigo, M. W.)
12. **Talwana, L. A. H.**, P. R. Speijer, Swennen, R. L. and D. De Waele. 2002. Effect of soil nutrient amendments on nematode infection, reproduction and damage on bananas. In *proceedings of the 20<sup>th</sup> Conference of the Soil Science Society of East Africa*. Mbale, Uganda 2 – 6 December 2002
13. **Talwana, L.A.H.**, P. R. Speijer and D. De Waele. 2000. Spatial distribution of nematode populations and nematode damage in roots of three banana cultivars in Uganda. *Nematropica*, 29: 19-31.
14. **Talwana, L.A.H.**, P. R. Speijer, E. Adipala and N. R. Maslen. 1996. Evaluation of cassava for reaction to root-knot nematodes (*Meloidogyne* spp.) in Uganda. *African Journal of Plant Protection* 6: 125 – 134

## Reports

1. Poultry Farm Management at Allied Farm Ltd., Mukono. A Farm management case study report submitted to the Faculty of Agriculture and Forestry in partial fulfillment of the requirements for the award of a B.Sc. (Agriculture) degree of Makerere University
2. Reaction of selected cassava varieties to natural populations of and inoculations with root-knot nematodes. A special research Project submitted to the Faculty of Agriculture and Forestry in partial fulfillment of the requirements for the award of a B.Sc. (Agriculture) degree of Makerere University
3. Development of an early screening technique for resistance and estimation of damage threshold of root-knot nematodes on cassava. A Thesis submitted to the Faculty of Agriculture and Forestry in partial fulfillment of the requirements for the award of a M.Sc (Agriculture) Crop Science degree of Makerere University
4. Spatial distribution and effect of plant-parasitic nematodes on root systems and plant nutritional status of bananas in Uganda. *Dissertationes de Agricultura*. Doctoral Thesis No. 512 in the Faculty of Agricultural and Applied Biological Sciences of the Katholieke Universiteit Leuven, Belgium (2002).

**Graduate Student supervision:**

1. Harriet Muyinza (PhD): The relationship between phytochemical composition and levels of sweetpotato root resistance to *Cylas* spp.
2. Steven Kakaire (PhD): The use of *Pasteuria penetrans* in an appropriate cropping strategy with non or poor host crops
3. Jibril Lubega (M.Sc): Diversity in entomopathogenic nematodes and their potential for bio-control of insect pests in Uganda
4. Esther Nampera Lugwana: Optimisation of cultural practices for the management of *Cylas* spp. of sweetpotato in Uganda.
5. Roboni Tumuhimbise (M.Sc) Agronomic management practices to enhance cocoyam (*Colocasia esculenta*) production in Uganda
6. Fokushaba Jovanice K (M.Sc): Physical methods for controlling dried cassava chips in Uganda
7. Butseya Maliro Mike (M.Sc): Plant parasitic nematodes associated with maize-based cropping systems in Uganda

**ADDITIONAL SKILLS**

Computer literacy in Word Processing using WordPerfect for MSDOS and Windows, and Microsoft Word for Windows; Data Management using EXCEL and D-BASE IV spreadsheets, MSTAT-C®, Statistical Analytical Systems (SAS®), SPLUS®, SPSS® and STATISTICA® Statistical packages